

What is claimed is:

1. A leather-like sheet fabricated by infiltrating an aqueous resin dispersion (A) into a fibrous substrate, which satisfies the following requirements (I) to (IV):

(I) the aqueous resin dispersion (A) comprises essentially a main resin (a) stabilized with a surfactant, a polymer (b) having a polyoxyethylene group in its side chains, and a surfactant (c);

(II) the main resin (a) comprises an urethane resin (a1) and/or an urethane-acrylic composite resin(a2), and the resin skeleton contains from 1 to 10 mmols of a carboxyl group per 100 g of the resin;

(III) the polymer (b) is obtained through polymerization of a polyoxyethylene group-having ethylenic unsaturated monomer (b1) and any other ethylenic unsaturated monomer (b2) in a ratio by mass (b1)/(b2) = 60/40 to 100/0;

(IV) the percentage, % by mass (α) of the polyoxyethylene group in the polymer (b) and the number of mols (β) of the amino group per gram of the polymer (b) satisfy the following formula (1):

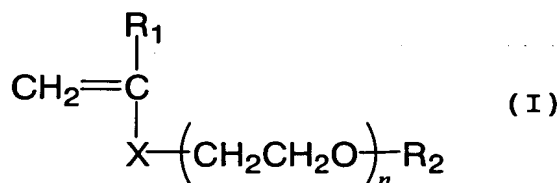
$$35 \leq \alpha + \beta \times 20000 \leq 60 \quad (1).$$

2. The leather-like sheet as claimed in claim 1, wherein the aqueous resin dispersion (A) further contains an inorganic metal salt (d).

3. The leather-like sheet as claimed in claim 1, wherein

the main resin (a) is an urethane-acrylic composite resin (a2) in which the ratio by mass of the urethane resin component to the acrylic polymer component falls between 10/90 and 70/30.

4. The leather-like sheet as claimed in claim 1, wherein the polyoxyethylene group-having ethylenic unsaturated monomer (b1) is a compound having a structure of the following general formula (I):



wherein R₁ represents a hydrogen atom or a methyl group; R₂ is a group selected from an alkyl group, an aryl group or an alkylaryl group having from 1 to 18 carbon atoms; X represents a group selected from -C(=O)O-, -OC(=O)-, -O-, -NHC(=O)-, -C(=O)NH-; and n indicates an integer of 2 or more.

5. The leather-like sheet as claimed in claim 1, wherein the number, n, of the repetitions of the oxyethylene unit in the polyoxyethylene group-having ethylenic unsaturated monomer (b1) falls between 2 and 10.

6. The leather-like sheet as claimed in claim 1, wherein the aqueous 10 % solution of the polymer (b) has a clouding point that falls between 10 and 60°C.

7. The leather-like sheet as claimed in claim 1, wherein the surfactant (c) is composed of from 30 to 100 % by mass of a nonionic surfactant (c1) having an HLB value of from 12 to

18, and from 0 to 70 % by mass of any other surfactant (c2).

8. The leather-like sheet as claimed in claim 1, wherein the aqueous resin dispersion (A) contains from 25 to 60 % by mass of a main resin (a), from 0.5 to 10 % by mass of a polymer (b), from 0.5 to 5 % by mass of a surfactant (c) and from 0 to 2 % by mass of an inorganic metal salt (d).

~~9. The leather-like sheet as claimed in claim 1, wherein~~
~~the gelling time of the aqueous resin dispersion (A) kept in~~
~~a closed condition at 70°C is within 10 minutes, and the viscosity~~
~~increase in the resin dispersion (A) kept in a closed condition~~
~~at 40°C for 2 weeks is at most 50 %.~~

10. The leather-like sheet as claimed in any one of claims 1 to 9, wherein the fibers that constitute the fibrous substrate are ultrafine fibers.

11. An aqueous resin dispersion (A) to be infiltrated into fibrous substrates, which satisfies the following requirements (I) to (IV):

(I) the aqueous resin dispersion (A) comprises ~~essentially a main resin(a)~~ stabilized with a surfactant, a polymer (b) having a polyoxyethylene group in its side chains, and a surfactant (c);

~~(II) the main resin (a) comprises an urethane resin (a1)~~
and/or an urethane-acrylic composite resin (a2), and the resin skeleton contains from 1 to 10 mmols of a carboxyl group per 100 g of the resin;

(III) the polymer (b) is obtained through polymerization of a polyoxyethylene group-having ethylenic unsaturated monomer (b1) and any other ethylenic unsaturated monomer (b2) in a ratio by mass (b1)/(b2) = 60/40 to 100/0;

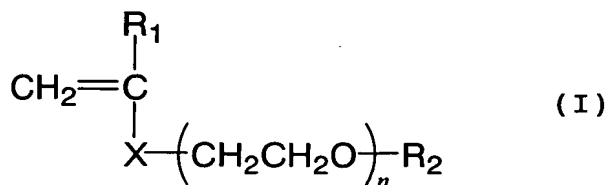
(IV) the percentage, % by mass (α) of the polyoxyethylene group in the polymer (b) and the number of mols (β) of the amino group per gram of the polymer (b) satisfy the following formula (1):

$$35 \leq \alpha + \beta \times 20000 \leq 60 \quad (1).$$

12. The aqueous resin dispersion to be infiltrated into fibrous substrates as claimed in claim 11, which further contains an inorganic metal salt (d).

13. The aqueous resin dispersion to be infiltrated into fibrous substrates as claimed in claim 11, wherein the main resin (a) is an urethane-acrylic composite resin (a2) in which the ratio by mass of the urethane resin component to the acrylic polymer component falls between 10/90 and 70/30.

14. The aqueous resin dispersion to be infiltrated into fibrous substrates as claimed in claim 11, wherein the polyoxyethylene unit-having ethylenic unsaturated monomer (b1) is a compound having a structure of the following general formula (I):



wherein R_1 represents a hydrogen atom or a methyl group; R_2 is a group selected from an alkyl group, an aryl group or an alkylaryl group having from 1 to 18 carbon atoms; X represents a group selected from $-C(=O)O-$, $-OC(=O)-$, $-O-$, $-NHC(=O)-$, $-C(=O)NH-$; and n indicates an integer of 2 or more.

15. The aqueous resin dispersion to be infiltrated into fibrous substrates as claimed in claim 11, wherein the number, n, of the repetitions of the oxyethylene unit in the polyoxyethylene group-having ethylenic unsaturated monomer (b1) falls between 2 and 10.

16. The aqueous resin dispersion to be infiltrated into fibrous substrates as claimed in claim 11, wherein the aqueous 10 % solution of the polymer (b) has a clouding point that falls between 10 and 60°C.

17. The aqueous resin dispersion to be infiltrated into fibrous substrates as claimed in claim 11, wherein the surfactant (c) is composed of from 30 to 100 % by mass of a nonionic surfactant (c1) having an HLB value of from 12 to 18, and from 0 to 70 % by mass of any other surfactant (c2).

18. The aqueous resin dispersion to be infiltrated into fibrous substrates as claimed in claim 11, which contains from 25 to 60 % by mass of a main resin (a), from 0.5 to 10 % by mass of a polymer (b), from 0.5 to 5 % by mass of a surfactant (c) and from 0 to 2 % by mass of an inorganic metal salt (d).

19. The aqueous resin dispersion to be infiltrated into

fibrous substrates as claimed in claim 11, of which the gelling time kept in a closed condition at 70°C is within 10 minutes, and the viscosity increase kept in a closed condition at 40°C for 2 weeks is at most 50 %.

20. A method for fabricating leather-like sheets, which comprises infiltrating an aqueous resin dispersion (A) of any ~~one of claims 11 to 19 into a fibrous substrate.~~

21. The method for fabricating leather-like sheets as claimed in claim 20, wherein the fibers that constitute the fibrous substrate are ultrafine fibers-forming fibers and the fibers are converted into ultrafine fibers before or after an ~~aqueous-resin dispersion (A) has been applied to the substrate.~~